



**MILL CITY  
PARK**

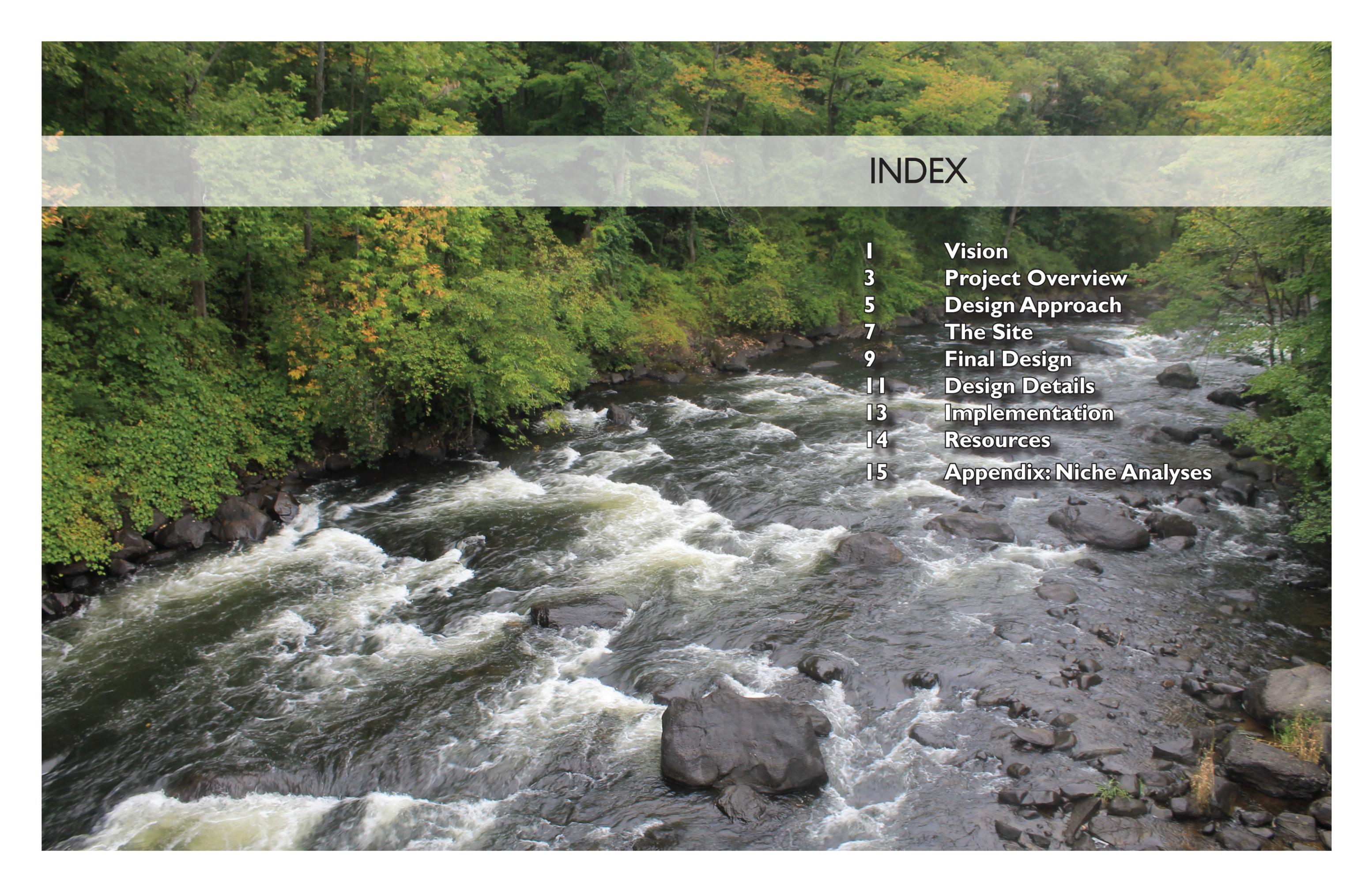
AT FRANKLIN FALLS

# MASTER PLAN

## ACKNOWLEDGEMENTS

This plan was prepared by Resilience Planning & Design LLC in January 2019. The authors would like to extend their appreciation to everyone who helped in the research and creation of the Mill City Park Master Plan especially the board members of Mill City Park at Franklin Falls and PermaCityLife.

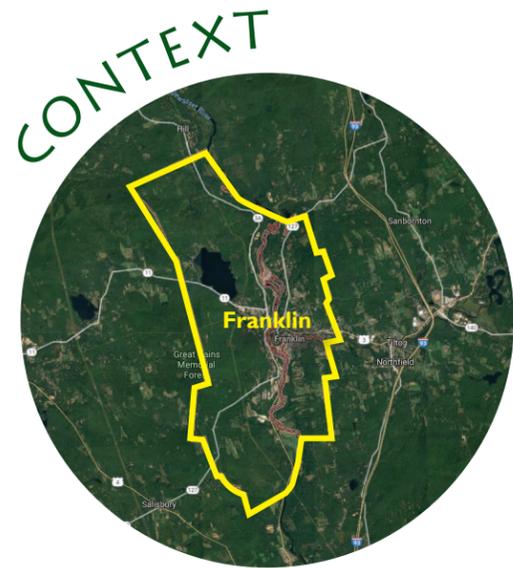




# INDEX

<b>1</b>	<b>Vision</b>
<b>3</b>	<b>Project Overview</b>
<b>5</b>	<b>Design Approach</b>
<b>7</b>	<b>The Site</b>
<b>9</b>	<b>Final Design</b>
<b>11</b>	<b>Design Details</b>
<b>13</b>	<b>Implementation</b>
<b>14</b>	<b>Resources</b>
<b>15</b>	<b>Appendix: Niche Analyses</b>

# PROJECT OVERVIEW



## BACKGROUND

The City of Franklin has been undergoing a series of revitalization and redevelopment efforts working to increase local economic opportunity, improve quality of life, and build a better connected, equitable, and sustainable city. Diverse private and public space projects are growing and flourishing, bringing life and vibrancy back into a city that was hit hard by the collapse of the mill industry. A primary goal in these efforts is to ensure that all the special parts of Franklin remain and are enhanced throughout the process.

Mill City Park at Franklin Falls is a non-profit organization whose mission is to create the City's first whitewater and outdoor adventure park in the northeast. An 11-acre parcel in downtown Franklin proved to be an ideal location for the whitewater park and multi-functional park facilities. The site will capture bicycle traffic from the Winnepesaukee River Trail on the opposite side of the Winnepesaukee River (on the south side of the Mill City Park parcel) and pedestrian traffic from downtown Franklin. Additionally, this particular section of the Winnepesaukee River already has a strong whitewater paddling user-base, drawing in paddlers from throughout the northeast. This parcel is also large enough to provide space for a multitude of outdoor activities.

In 2018, Resilience Planning and Design and FitzDesign were hired to create a master plan for the site, a first step in tying the different park components together cohesively. The purpose of the master plan is to provide a concept plan for the site and a framework for planning, design, construction, and maintenance of Mill City Park that is grounded in permaculture design principles and sustainable land management techniques.



# VISION & GOALS

*The vision of Mill City Park is centered around investing and leveraging the City of Franklin's greatest assets and distinct qualities, while offering a unique experience one can only have in Franklin. This experience is grounded in a love for the outdoors, adventure, history, and living lightly on the earth.*

To create a more powerful, "living" vision and goals, the following statements are written in present-tense as desired conditions.

Mill City Park is the northeast's **first whitewater park and outdoor recreation area** located on the north bank of the historically popular whitewater kayaking destination in Franklin - the Winnebago River. Kayakers, canoeists, and paddlers of all levels practice their skills among diverse whitewater features, while spectators view the action. **The park caters to outdoor enthusiasts** by offering multiple ways to play outside all in one day, weekend, or more.

Building off the strong momentum and growing interest in mountain biking, the park features a high-quality, well-maintained pump track and skills area for practicing and fun. Its proximity to the heavily used Winnebago River Trail, a multi-use path that extends from Tilton to Franklin, helps attract the regional biking community.

A **climbing wall, parkour area, and multi-use path** offer a range of activities for young, old, beginner, or expert. The park includes space for large and small events and a variety of amenities that make it fully operational, offering ease, comfort, and utility to park users. Connections to the wider community are strengthened by it being within **walking distance of downtown Franklin** and other nearby parks and by providing a place for Franklin residents to participate in a **Community Garden**.

Visitors of Mill City Park have an opportunity to reconnect with the water that was once a significant part of the community's daily lives and with relics of Franklin's industrial past. Creating destinations along a city's waterways is critical to invoking a sense of kinship with the natural environment, an appreciation of riparian ecosystems, and an opportunity to highlight one of the most important elements in this urban landscape- the Winnebago River



# DESIGN APPROACH

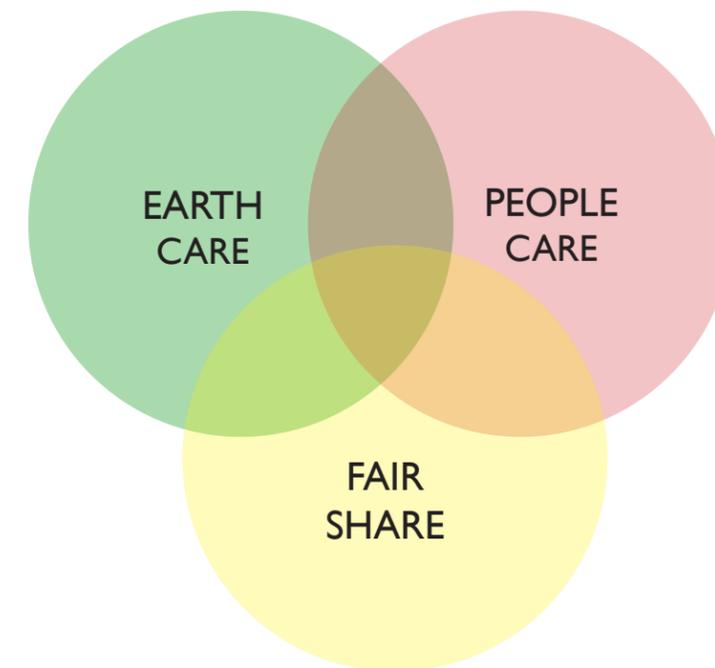
**“Permaculture is a philosophy of working with, rather than against nature.”**

**-Bill Mollison**

The creation of this master plan utilized a “Permaculture” approach. Permaculture is an adaptive and creative way to design sustainable landscapes and communities. It focuses on working with a place’s natural systems and mimicking the patterns and relationships we find in nature to create healthy, equitable, and ecological landscapes.

The goals of a property designed using a permaculture approach is to provide economic, social, and ecological benefits and services to all species. The Permaculture design process is informed by ethics and design principles, which guide the work and ensure a project is keeping its integrity related to community and environmental stewardship. The City of Franklin has seen other redevelopment projects

in its downtown that utilize a permaculture approach, largely led by the non-profit organization, PermaCityLife. The organization promotes ecologically sound and sustainable development where historic buildings are retrofitted and reused for new, revenue-generating uses, vibrant community spaces are created, renewable energy is produced on site, linkages are considered for bicycle and pedestrian travel, and integrated landscapes provide habitat, air and water purification, and other ecosystem services. Applying a permaculture approach to multiple projects within a city in a coordinated way is something new for New Hampshire and the wider region. Mill City Park is an integral component to this larger effort.



*The Permaculture Ethics*

## PERMACULTURE DESIGN PRINCIPLES

Source: David Holmgren's "Permaculture Principles and Pathways"

### 1. Observe & Interact

Understanding the site and local conditions is critical when designing a sustainable landscape. The site's intrinsic qualities including natural, cultural, and built features of the site were assessed during the design process.

### 2. Catch & Store Energy & Use Renewable Resources

"Energy" can mean many different things, whether that be energy for power, human energy, or the energy of other natural elements such as water. This project aims to utilize renewable energy sources, such as solar panels, to power structures on site. Additionally, the renewable energy produced by waves is harnessed for playboating, canoeing, and kayaking.

### 3. Obtain a Yield

A "niche analysis" is a design tool used for analyzing the design criteria, intrinsic characteristics, outputs, and benefits or services a design element provides to people, the economy, and the environment. This tool was used to assess different park components and activities and are included in the back of this plan as an appendix. In the master plan, design elements are arranged in such a way that their yields are maximized.

### 4. Apply Self-Regulation & Respond to Feedback

Natural ecosystems include plants and animals whose resource use and consumption is often balanced by fluctuations in population, natural hazards, predator and prey relationships, and other actions. For this reason, human overconsumption habits are unecological. It's important we create public spaces that reflect sustainability ethics and land stewardship.

### 6. Produce No Waste

Design techniques such as low-impact landscaping, natural building, renewable energy, and composting are part of the park's approach to limit waste production if possible.

### 7. Design from Patterns to Details

Permaculture seeks to understand and mimic successful patterns found in nature. "Pattern thinking" reveals the "big picture" of the design. This Master Plan was generated at the conceptual level in order to provide that big picture view.

### 8. Integrate rather than Segregate

The relationships between park elements are as important as the elements themselves. The "niche analyses" provided insight on how to arrange elements so that they mutually benefit each other and created a cohesive, desired experience for park users.

### 9. Use Small and Slow Solutions

A realistic and practical implementation plan emphasizes the need for phasing in order to realize the full potential of the park design over time.

### 10. Use & Value Diversity

Mill City Park offers a diversity of ways to participate in its experience including a range of active outdoor adventure activities, opportunities to connect with nature, spaces for many kinds of events, and more passive recreation activities including gardening and walking.

### 11. Use the Edges

The edge between the river and the forest in the park is an important edge habitat where two ecosystems meet. The riparian buffer is protected in certain areas along the river to maintain ecosystem services and provide refuge for wildlife.

### 12. Creatively Respond to Change

"Vision is not seeing things as they are, but as they will be". Acknowledging the ever-changing dynamics of a complex site and planning for change results in a place that remains highly functioning and relevant to its user-base.



# THE SITE



1 A multi-use path, former location of the railroad, runs through the future site of Mill City Park.



2 A view looking out at a natural wading pool formed by the Winnebago River from the bottom of the northern bank.

“Parks and playgrounds are the **soul** of a city.”

-Marty Rubin

## URBAN CONTEXT

The 11-acre future site of Mill City Park is located in a high-density business and commercial district and adjacent to a residential neighborhood. It's within walking distance of downtown Franklin where there are housing units, parks, stores, restaurants, and other businesses.

Successful downtowns are typically walkable with multiple activities and venues for socializing and participating in the social fabric and local economy of the city. Downtown urban revitalization also spurs reinvestment. Mill City Park will contribute to this vision for a vibrant downtown in Franklin.

## NATURAL FEATURES

The majority of the site is second-growth hemlock-hardwood-pine forest with undulating topography, young trees, and thick, understory vegetation. Site topography generally slopes toward the

Winnebago River with fairly steep banks that make accessing the river challenging.

This Red Oak forest type provides possible or potential habitat for a number of species including the cerulean warbler, purple finch, wood turtle, American woodcock, red-shouldered hawk, and a variety of amphibians and small mammals. Tree species in this ecosystem include white pine, eastern hemlock, beech, red oak, witch hazel, maple-leaved viburnum, and black birch.

Vegetation also buffers the Winnebago River, providing a variety of ecosystem services including protection of water quality, shade which keeps water cool for aquatic species, wildlife habitat, and reduces bank erosion and sedimentation. Additionally, there are a number of “opportunistic species” that have been introduced to the site due to past disturbances including burning bush, bittersweet, and barberry.

## HISTORIC FEATURES

Franklin is known as the “Three Rivers City”, referring to the Pemigewasset and Winnepesaukee Rivers flowing through the city and meeting at a confluence which leads into the Merrimack River. Historically, the presence of these rivers and the emergence of rail travel resulted in an industrial boom in Central NH, as textile and paper mills were constructed utilizing hydropower created by the rivers. The mill industry created jobs and attracted people into the city. Just as the rivers shaped Franklin’s history, they will continue to shape its land uses and future.

Three paper mills associated with the Winnepesaukee Paper Company were formerly located on site. Portions of the railroad and buildings still remain including wood, brick, stone, and concrete foundations and walls. Old railroad tracks run through the forested areas until they cross over open water along the Sulphite Bridge, which is rumored to be the only “upside-down” trestle bridge in the country. The second trestle bridge crossing is located closer to Route 3/Central St. Both bridges remain historic landmark structures and present significant opportunities for creating pedestrian and bicycle connections.

Over time, water quality of the Winnepesaukee River has improved as time and effort have cleaned up much of the pollution left by the mills. The future Mill City Park will incorporate multiple ways to continue restoring the health of this river including green infrastructure to manage stormwater on site, maintaining a healthy vegetated buffer in places along the river, and providing education to park users about environmental stewardship.



3 One of the two trestle bridges that cross onto the future Mill City Park property.



4 A view of the historic Winnepesaukee Paper Company mills in Franklin.



5 Brick walls and foundation of former mill building.



6 Stone wall/foundation from historic mill structure.



7 Mill remnants scattered throughout the site.



8 An old concrete pad presents a flat area of the site near the main access point.

# FINAL PLAN

---

Mill City Park provides space for a variety of outdoor activities, community connections, and supporting facilities that make the park comfortable, accessible, and unique. The following descriptions speak to different areas of the park as they are envisioned, and provide some additional details on these proposed design features. The concept plan on page 9 shows the location and size of each design element. A series of niche analyses (found in the Appendix) were also created for each design element to better understand design considerations, needs, and services that the design element provides. This provided insight on the placement, location, and quality of design elements within the landscape that all contribute to the vision and conceptual design for Mill City Park.

## GATHERING SPACES

Mill City Park builds community by offering a diversity of ways for people to come together. Viewing areas accommodate spectators during whitewater competitions or events, allowing the public to watch from higher elevations. An amphitheater and pavilion take advantage of a “bowl-like” area below the rail right-of-way on the western side of the park, providing an additional flexible gathering space for events, live performances, or other activities. For solitary experiences, benches and seating areas along the park’s walking paths allow park users to sit, linger, and enjoy the natural beauty around them.

## ECOLOGICAL DESIGN

Mill City Park has the potential to become a model for sustainable and ecological site design utilizing Permaculture ethics and principles. The park will feature a variety of sustainable design and construction techniques focusing on increasing biodiversity, reducing energy consumption, efficient cycling of resources, and stewardship of soil, water, and other critical resources.

A community garden located on the western portion of the site near Route 3 serves as a gateway/entrance to the Park and provides a location for food production within the downtown area. Additionally, it contributes to the city’s green infrastructure by capturing and cleaning stormwater, provides surplus food to those in need, and provides opportunities to learn about food production and nutrition. A food forest with walking paths is located on the uphill portion of the site, and includes fruit and nut trees and a variety of other perennial food species.

The structures on site will utilize solar electric or other renewable energy power sources. Low impact development techniques such as rain gardens and bioswales will capture stormwater from the new impervious surfaces on the site, filtering the water, and directing it to vegetated areas. Site design and construction will focus on minimizing site disturbance unnecessarily and will prevent erosion and runoff issues. Native plants will be used in revegetating areas and in new garden spaces.

## ACCESS & CIRCULATION

To access the park by vehicle, automobiles enter via Willow Street off Route 3 and park in a parking lot at the north end of the site. From there, visitors can walk to the various park elements on designated walking paths and enjoy interpretive trails through an “outdoor museum” of visible mill ruins and public art installations, where the site’s industrial and natural history are celebrated. The pathway network meanders through the park’s natural setting and link key destinations in a logical, user friendly way. Paths are designed for universal accessibility and meet ADA guidelines for grading and materials while maintaining a woodland path character.

A multi-use trail along the old rail bed extends from one of two newly converted pedestrian and bicycle trestle bridges on the western portion of the property, providing

a way for bicyclists using the Winnepesaukee River Trail to access the site and connect to Route 3 and downtown. The multi-use trail will be wide enough for a variety of activities including walking, biking, snowmobiling, snow shoeing, and cross-country skiing. Pedestrians are also able to walk under the Route 3 bridge to access Trestle view park from the Winnepesaukee River Trail. Connecting Mill City Park, Trestleview Park, and the Winnepesaukee River Trail creates a well-connected and expanded area for whitewater access as well as pedestrians and cyclists. Overflow parking for events is located in the northern most part of the site.

## PARK ADVENTURE ELEMENTS

Mill City Park offers a range of outdoor adventure opportunities for everyone to enjoy. The outdoor adventure elements of the park are located throughout the site and include the following:

### Water Play Areas

River play areas located in the southwestern portion of the site make use of natural wading pools and by building protective “jetties” along the river banks. Access to these areas is improved and made safer through the historic raceways that used to serve the mill buildings. These areas provide a place for kids to play and learn about nature, promote environmental stewardship, and attracts families to the park. Natural play features in these areas include boulders to sit and climb on, wading pools for swimming and catching insects, and logs to practice balancing. There’s also an area where children can pump and move water to create constructed “water slides”.

Water play areas are designed to maximize safety by minimizing fall heights, utilize environmentally sensitive design practices to minimize erosion, and, incorporates open sight lines for adults to watch children. Additionally, appropriate signage is installed close by communicating safety and use guidelines.

### Pump Track and Skills Trail

A mountain bike pump track and skills course are located near the main parking lot, providing a mountain biking area near downtown. A pump track is a continuous circuit of banked turns and rollable mounds of varied heights that are interspaced by rollers and other features, designed to accommodate beginners to more advanced riders. These features provide bicyclists of all levels an opportunity to exercise, play, and build skills. As mountain biking is incredibly popular in New Hampshire, this track will draw a larger crowd of users to the site and will create an additional area within the park for gathering and community building. Pump tracks require earth moving to construct berms, turns, and jumps, and maintenance is required to ensure the track remains high quality and to mitigate drainage and erosion issues.

### Mill Ruin Climbing Wall

Some of the historic mill stone remnants located on the southeastern portion of the site are transformed into a safe and fun climbing wall for children and young adults. This provides a space to master bouldering skills and techniques. For those who don't live near a climbing gym or see cost as a barrier to joining a gym, a climbing wall in a public park can be a creative way to increase access to this activity. The wall features handholds drilled into the existing stone wall and will be used primarily for bouldering, limiting the need for ropes, harnesses, and other such gear. Certified play surface material will be used around the base of the wall and signage displays safety guidelines nearby. Communal crash pads could also be made available for park visitors on site.

### Natural Play Area

A growing trend that aligns well with this project is the creation of natural playgrounds for children. Typically, natural playgrounds contain elements that are part of nature or are made from natural materials including trees, grass, logs, wood, stone, water, and tree houses. They contain space for children to run and play and often include natural and prefabricated materials that are

moveable and can be manipulated, to create a playground that is flexible in form. Natural playgrounds are designed to develop motor skills, social behaviors (cooperation, problem solving), and stimulate a child's imagination and creativity. The natural playground is located near the mill remnant climbing wall and not far from the water play areas and amphitheater. A surface material like wood chips is located underneath the various play features. Play features may include more typical playground elements like slides and swings that utilize natural materials as well as towers, climbing structures, and balance beams. There is opportunity to construct natural play features or smaller natural playgrounds in other areas of the park in the future as well, providing additional places within the park for families to take their children.

### Parkour Area

"Parkour parks" offer a high density of physical challenges not available in the typical urban environment. This parkour area will include a variety of constructed features made of wood, concrete, or steel for activities that include jumping, climbing, and acrobatics. The parkour area is located west of the mountain bike pump track. Since it requires no additional specialized equipment, the activity is accessible to those who cannot afford specialized outdoor equipment, increasing equity in recreation activities at Mill City Park. Building materials are bent into a variety of heights, shapes, and elevations to accommodate beginners and more advanced users. There are elevated bars for swinging, waist high elements for vaulting, and medium to high walls or blocks for climbing. Ground surfacing material includes wood chips, playground surfacing, or a similar natural material. Specific signage and boundaries will delineate the parkour area.

## OUTDOOR ACCOMMODATIONS

In anticipation of increased park traffic and the desired volume of events throughout the year, rental cabins and tent sites located on the northeastern portion of the site will offer overnight accommodations for park visitors.

This will also serve as a way to generate revenue for park operations and maintenance costs. Rental cabins are located by the parking lot and feature a driveway wide enough for maintenance or emergency vehicle access, but used primarily for pedestrian access.

Cabins utilize a compact design and are inspired by the historic mill housing that once existed on the former mill site. Designed to be 4-season accommodations, they offer the comfort of sleeping in a bed throughout the year, whereas tent sites are also available nearby for those who prefer that experience during warmer months. The Park Center will be a central meeting place powered by a rooftop solar array and providing a communal kitchen and restroom/shower facilities for those renting a cabin or tent site.

# Concept Plan



# MILL CITY PARK AT FRANKLIN FALLS

# DESIGN DETAILS

---

## VIEWING AREA

*A series of three viewing areas are created along the Winnetoesaukee River. These areas are designed to increase pedestrian and boater access to the river and provide a space for visitors to watch paddlers in the whitewater park. Boulders create a buffer between viewers and those participating in water activities. Boat launching areas for canoes and kayaks are incorporated into their design. These areas are accessible, flat, and provide seating options for spectators.*



## AMPHITHEATER

The Park's amphitheater features flexible, outdoor seating that can be used for community gatherings, events, and individual use. A timber frame pavillion provides event space for theater, concerts, and other performances. Other times, it might serve as a place for family picnics, quiet evenings with friends, and enjoyment of nature. Seating is terraced, the area is well lit, and the surrounding forest is complemented with perennial gardens that utilize similar native plants.



# HISTORIC RUINS TRAIL

A wide, flat walking trail winds through the forest taking pedestrians on a journey through history. Clearings around various mill ruins and industrial remnants create space for visitors to see the artifacts and linger over interpretive signage that celebrate's Franklin's mill and water-based history. Open space along the trail provides an opportunity to place public art and sculptures that offer another way for visitors to engage with Franklin's cultural history. Various seating locations along the trail provide space for time in nature and increase views of the river for pedestrians.



# IMPLEMENTATION

---

The implementation of this vision for Mill City Park will take time and a commitment to the values that informed this design. Some of the factors that contribute to the time needed include:

- Detailed design work,
- Coordination with the building of the whitewater park, and
- Fundraising efforts.

## DETAILED DESIGNS

The Mill City Park Master Plan communicates the vision and conceptual design of the park facility. This was Phase I of the design process and was critical as it allowed for a deeper understanding of this complex site, the desired features, and articulates where and how these features should be arranged. As each element moves to implementation there will be a need for more detailed designs that can guide permitting and construction.

At this point, it is critical that the designs incorporate low impact development practices including green infrastructure elements. This will ensure that each area of the park contains and infiltrates its own stormwater, provides shade, includes native species for habitat, and includes other ecosystem services as appropriate while contributing to the restoration of a complex and functional ecosystem. Each detailed design should also result in the creation of a maintenance manual that will inform staff and volunteers on annual maintenance needs, and how to do so as stewards of these new spaces.

## COORDINATION WITH THE WHITEWATER PARK

The phasing of this implementation effort will need to be carefully coordinated with the needed clean-up and alteration of the Winnebago River. The main reason for this is that access to the river for heavy equipment will be throughout Mill City Park. This presents an opportunity to use the necessary passage across the property to begin the process of roughing in the trail and road network on site.

Once the whitewater park is complete and there is no need for additional access to the river with heavy equipment the shoreline features and trails can be constructed. A road access will remain along the northern boundary of the park so implementation of the various projects within the park can take place as the funding and need become more clear.

## FUNDRAISING

Funding will be necessary to bring this vision to reality. As an implementation schedule is created it will become clear which projects are more capital intense and which could be moved forward with smaller budgets and/or volunteer resources.

## RESOURCES

Integrated Landscaping: Following Nature's Lead- UNH Cooperative Extension  
Ecologica Design Techniques for Public Spaces in the Northeast

The Interpretive Trails Book: Effective Planning & Design- John A Veverka  
Successful Design Guidelines for Creating Amazing Interpretive Experiences

Parkour Design Guidelines- Parkour Visions  
<http://wiki.parkourvisions.org/build/parks-design>

Natural Play Washington- Selected Case Studies in Designing Natural Play Spaces  
<https://www.natureplaywa.org.au/programs/nature-playgrounds/case-studies>

Bermstyle Guide to Designing Pump Tracks  
<http://www.bermstyle.com/pump-tracks/>

# APPENDIX: NICHE ANALYSES

A niche analysis is a tool used in the permaculture design process to understand the many aspects and connections a single element has within a larger system. An ecological “niche” refers to a position or role taken by a kind of organism within its community. In a design, each element has its own “niche” in an ecosystem. Niche analyses provide information on general characteristics, design considerations, and needs, allowing better placement of these elements within the landscape so that multi-functionality and beneficial relationships emerge.

## Whitewater Park

### PURPOSE

This whitewater park has the potential to reimagine and revitalize Franklin. It will promote development and redevelopment, attract businesses, enable entrepreneurs to start new businesses, and increase the attractiveness of the City to prospective residents and tourists alike.

### DESIGN CONSIDERATIONS

**Location & Space Needed:** The whitewater park will be constructed in the Winnepesaukee River and will provide an opportunity to complete a river cleanup. This will include removing items and hazards that remain from the earlier industries located in the area. The park will include a series of constructed features for whitewater paddling.

### SERVICES IT PROVIDES

A unique recreation opportunity that will draw visitors and make the river accessible to a broader range of users. An anchor feature that makes Franklin unique and will support the revitalization efforts in the Downtown and surrounding region.

### OTHER DETAILS ASSOCIATED

Based on the experiences of similar facilities elsewhere in the United States - For every ten people visiting the whitewater park only two will actually use the features in the river.

### OTHER ELEMENTS IT SHOULD BE LOCATED IN RELATION TO:

- Viewing areas allow people to watch paddlers as they use the river.
- Viewing areas have been coordinated with key features and will also serve spectators during competitions.
- Access points are critical for paddlers looking to gain access to the River – this is a consideration that was factored into the design of Mill City Park.
- There will be three specific whitewater features constructed:
  - The Competition Hole will be located adjacent to Trestle View Park
  - The Bridge Wave will be located between the Central Street Bridge and the Trestle Bridge
  - The Upper Hole will be located near the viewing area and river access point east of the water play areas



Above: A “bridge wave” feature called the “Staircase Wave” at the Buena Vista Whitewater Park, Upper Arkansas River.



Above: A “competition hole” feature at Reno Whitewater Park, Truckee River, NV.



Above: An “upper hole” style feature. Upper Arkansas River.

## Community Garden

### PURPOSE

Provide a location for food production within the downtown area. Provide surplus food to those in need in the community. Build community and provide opportunities to learn about food production and nutrition. Provide additional vegetation and ecological function in the downtown. Add beauty and seasonal interest. Create an outdoor gathering space. Serve as a gateway to Mill City Park and Downtown Franklin!

### DESIGN CONSIDERATIONS

**Location & Space Needed:** The location is along Central Street between the roadway and the Trestle. Sunlight, access to healthy soil, involvement from people, and available water are all critical needs. To increase equity and ensure the garden can be used by many different people, ADA guidelines should be utilized, and garden beds of varying heights should be constructed to accommodate children and elderly. The size of the garden still needs to be determined, but it can be phased in over time.

**Other Needs:** This community resource requires coordination and management. The site will require an investment to get established as a physical element of the park and as an entity. Access to water, storage for tools, building materials for the garden beds, compost, mulch, and other needs will have to be addressed. Keeping the site inviting, productive and aesthetically pleasing are all needs for this gateway to the downtown and to Mill City Park.

### SERVICES IT PROVIDES

The conversion of the lawn to garden will greatly increase the ecological functions on this site and better serve the community's needs. Community gardens increase access

to fresh, nutritionally rich, local produce, reduce the city's carbon footprint, infiltrate stormwater from nearby streets, and provide a place to retreat from the commotion of urban life or to socialize with neighbors. There is ample research that dictates community gardens as having positive economic benefits (such as increasing surrounding property values). Community garden programs can also provide employment, education, and entrepreneurship opportunities for a wide variety of people, including students and recent immigrants. Additionally, community gardens have been linked to improving mental health by offering another opportunity for residents to connect with nature. Community gardens also increase neighborhood surveillance or "eyes on the street" which is linked with crime prevention success. Other studies have show that crime decreases in neighborhoods as green space increases.

### OTHER DETAILS ASSOCIATED

Some of the soils on this site have suffered from the previous land uses and show signs of contamination. This will require remediation over time using organic materials and the introduction of perennial foods (fruit and nut bearing shrubs and trees), and where annuals will be grown it will be important to establish new growing beds that do not make use of any contaminated soils.

### OTHER ELEMENTS IT SHOULD BE LOCATED IN RELATION TO:

This type of use benefits from having easy access, lots of eyes on it to see what is needed, and as a result it has been identified for the entrance or gateway to the park. Being near people, sunlight and water will make this a more successful venture.



Above: Mill City Grows, an urban agriculture and local food advocacy organization based in Lowell, MA built these 2-3' high raised beds to make it easier, safer, and more convenient for older individuals to use them.



Above: Beacon Hill Edible Food Forest in Seattle, WA.



Above: A Chicago community garden shows how a line of trees can create a sense of privacy from the busy downtown streets, as well as provide carbon sequestration, air purification, and shade functions.

## Water Play Areas

### PURPOSE

This area of the park is meant to serve as a natural play area where water, stone, and other natural features create fun, nature-based experience for children.

### DESIGN CONSIDERATIONS

**Location & Space Needed:** This area will be located in the southwestern portion of the site near the river. Natural play area features may include boulders to sit and climb on, trees for shade and shelter, flowers to smell, streams and creeks, wading pools to catch insects and frogs, water features to pour and splash in, and logs to practice balancing. Additionally, by pumping and moving water, “water slides” could also be constructed, creating a “water park” feel.

**Other Needs:** Safety should be the number one priority for this design- minimize fall heights, use a variety of surface materials, incorporate open sight lines so children can easily be supervised, and ensure signage communicates safety guidelines. Additionally, this area should be accessible to many children, engaging, unique, intergenerational, flexible, and experiential.

### SERVICES IT PROVIDES

An opportunity for kids to play in the dirt, explore and learn about plants, and play in water. A draw for families who may want to watch whitewater paddling events but need to have something for their children to enjoy nearby. A gathering place for younger children to play and socialize. A “learning laboratory” for educational programming in collaboration with local non-profits and other groups. Research supports that natural play areas cultivate more creative forms of play, improve motor condition, increase concentration, and have been shown to build a foundation for environmental stewardship in children.

### OTHER DETAILS ASSOCIATED

Ensure design is environmentally sensitive especially when manipulating earth, soil, and water near the naturally flowing river. Involve parents and children in the community to incorporate their ideas and feedback into the design.

### OTHER ELEMENTS IT SHOULD BE LOCATED IN RELATION TO:

Pedestrian pathways, restrooms, viewing areas.



Above: Teardrop Park, part of Battery City Park in Manhattan, NYC features a unique children's play area designed to offer both “sanctuary and adventure”. Site topography, interactive water fountains, natural stone, and intimately scaled plantings contribute to this exciting space.



Above: Children playing at Itasca State Park in in Minnesota.



Above: A wading pool near a river.

## Viewing Spots

### PURPOSE

Viewing areas will increase pedestrian access to the river and allow visitors to watch paddlers in the whitewater park and the park's other outdoor recreation areas.

### DESIGN CONSIDERATIONS

**Location & Space Needed:** Viewing areas should be strategically located where people may want to watch recreational activities, socialize with friends, and/or to enjoy time by the river. They should be somewhat flat, and in some areas, elevated or terraced to provide views of whitewater activity. They should allow canoe/kayak access at specific locations, incorporate accessibility when possible, and provide seating and potentially lighting and signage.

**Other Needs:** Safety features such as railings may be necessary depending on the location. Low impact development techniques should be used to minimize erosion and drainage issues and protect wildlife habitat.

### SERVICES IT PROVIDES

Viewing areas enable equitable access to the river, provide a place to sit, and become a way to get involved in the adventure sport scene without participating directly. Designated viewing areas will limit foot traffic along the riparian zone of the river by concentrating activity at specific locations. This will limit disruption to more sensitive areas.

### OTHER DETAILS ASSOCIATED

Viewing areas may require different design considerations depending on their intended purpose. Some may be small and private, others may be for spectator seating.

### OTHER ELEMENTS IT SHOULD BE LOCATED IN RELATION TO:

Pedestrian pathways. Water play areas. Whitewater park.



Above: Terraced seating at Reno River Festival at Reno Whitewater Park.



Above: Terraced seating at Confluence Whitewater Park in Denver, CO.

## Amphitheater

### PURPOSE

Outdoor seating for community gatherings and individual use. Events that occur here may include concert/live music, theater, performances, dances, etc. Other times, it may serve as a place for family picnics, quiet evenings with friends, and enjoyment of nature.

### DESIGN CONSIDERATIONS

**Location & Space Needed:** Slope for terraced seating. Capacity to seat \_\_\_ individuals. Should be centrally located, within easy walking distance of the parking lot, yet also somewhat close to other program areas. The inside bank of the Railroad right-of-way has been identified as a suitable location with easy access from downtown.

**Other Needs:** Materials to create the terraces, stairs, low maintenance ground cover. Access on trails that provide universal access. Some accommodation for individuals that are differently abled. Access to electricity, lighting, etc. The drainage of the modified site must be considered in the design and should reflect

Low Impact Development practices when establishing a sub-surface or surface drainage system. Consider installing a physical buffer from any conflicting activities. Strategic planning for how to best utilize this space, programmatically, will contribute to the optimum utilization of this space.

### SERVICES IT PROVIDES

Amphitheaters provide gathering space for entertainment, an opportunity for community building, and can be used to build additional revenue through events.

### OTHER DETAILS ASSOCIATED

The construction of this feature will require earthwork, so the phasing of construction should be considered.

### OTHER ELEMENTS IT SHOULD BE LOCATED IN RELATION TO:

Bathrooms and a pavilion or stage area.



Above: Swarthmore College's Amphitheater with large shade trees placed among seating to provide shade and stabilize bank



Above: Wide stone seating and stairs create a comfortable space to stroll, sit, and relax.

## Pavillion

### PURPOSE

To provide a sheltered location for community events and individual use. To demonstrate a traditional building practice that celebrates natural materials. To demonstrate rainwater collection.

### DESIGN CONSIDERATIONS

**Location & Space Needed:** The anticipated location for this feature is in close proximity to the amphitheater. The structure can be sized to fit the location needs and budget.

**Other Needs:** A foundation, locally milled frame, roof. Timber framing expertise and volunteers to assemble and raise the structure. Access to electricity for lighting, sound, or other needs of community events.

### SERVICES IT PROVIDES

Sheltered space for entertainment and community gathering. Rainwater for use to support nearby plantings or the community garden. A frame raising that will generate community interest.

### OTHER DETAILS ASSOCIATED

There is the potential that this structure could be built through a partnership with a local timber framer, and that a class could be structured around its design and construction.

### OTHER ELEMENTS IT SHOULD BE LOCATED IN RELATION TO:

Amphitheatre – as this could serve as a covered stage for events. Bathrooms – to support the comfort of attendees at events. Parking and equipment access.



Above: A sketch up diagram of the timber frame pavillion by a class from Colby Sawyer College.

## Climbing Wall

### PURPOSE

To provide an opportunity for children and young adults to master bouldering skills and techniques. For those who don't live near a climbing gym or see cost as a barrier to joining a gym, a climbing wall in a public park can be a creative way to increase access to this activity.

### DESIGN CONSIDERATIONS

**Location & Space Needed:** The climbing wall will feature handholds drilled into an existing stone wall located on the southern portion of the site near the river. This wall will be primarily used for bouldering which limits the need for ropes, harnesses, and other such gear.

**Other Needs:** There should be signage that list safety guidelines for those wanting to use the wall. To further enhance safety, a soft surface material like wood chips should be located under the wall and communal crash pads could be invested in to mitigate risk of injury from falling.

### SERVICES IT PROVIDES

Rock climbing is a healthy physical and mental activity that is increasing in popularity. The climbing wall utilizes existing resources to provide another outdoor adventure activity to park visitors to experience.

### OTHER DETAILS ASSOCIATED

In planning for this area of the park, structural integrity of the wall, a safe place to land on the ground while bouldering, and addressing whether climber's will be able top out will all be important details to address. If attaching handholds to the existing rock wall proves to be more challenging or presents safety risks, a constructed "man/woman made" wall may need to be considered.

### OTHER ELEMENTS IT SHOULD BE LOCATED IN RELATION TO:

Pedestrian pathways, restrooms, seating areas for spectators, other adventure activities (such as parkour).



Above: Bozeman Pond Boulder, Bozeman Montana.



Above: A bouldering wall in a Jackson Hole, Wyoming public park.

## Multi-Use Trail

### PURPOSE

The multi-use path will be constructed on the existing railroad grade from Trestle Bridge to Sulfite Bridge and is designed to accommodate several different users. This will eventually connect to the Winnepesaukee River trail and form a 5K walking/running/biking loop beginning and ending at Trestle View Park. Within Mill City Park, this will connect many of the areas/features and will be a major access and circulation element.

### DESIGN CONSIDERATIONS

**Location & Space Needed:** Users of the multi-use path may include bicyclists, walkers, runners, wheelchair users, people with strollers, skaters, snowmobilers, cross country skiers, etc. Ensure surface material is ADA accessible such as asphalt, compacted soil, or stone dust.

**Other Needs:** These paths are typically designed for two-way travel. Consider an 8-10-foot path to ensure passing and access for maintenance. Utilize environmentally sensitive trail design and construction practices to ensure minimal water and soil disturbance.

### SERVICES IT PROVIDES

Improves bicycle route connectivity in Franklin and wider region. Separates bicycle and pedestrian traffic from motorized traffic. Connects park and regional visitors to downtown Franklin, thereby resulting in a cascade of economic development benefits. Provides diverse recreation options for residents and visitors alike.

### OTHER DETAILS ASSOCIATED

Signings and markings, if using asphalt, such as a centerline stripe or “keep right” signs, help communicate suggested traffic behavior. Consider remediation methods for potential soil contamination from previous railroad uses. Ensure clear, open lines of sight. Consider maintenance such as snowplowing and storage areas along path.

### OTHER ELEMENTS IT SHOULD BE LOCATED IN RELATION TO:

Park center, pedestrian paths, restrooms, bicycle parking.



Above: The asphalt Minuteman Bike Trail in Arlington, MA



Above: A more rural, woody multi-use path made of compacted soil- Pittsburg Rail Trail.

## Parkour Area

### PURPOSE

Parkour is an athletic activity in the built environment using a variety of body movements including jumping, climbing, and acrobatic techniques. Distinctive “parkour parks” can offer a high density of physical challenges not available in the typical urban environment, making them more likely to be a regional draw for parkour athletes.

### DESIGN CONSIDERATIONS

**Location & Space Needed:** Designated space large enough for many physical features. A space with a natural change in grade is ideal for parkour parks. Building materials (wood, concrete, steel, etc.) for parkour features displaying a variety heights, shapes, and types. Ground surfacing material such as wood chips, playground surfacing, and artificial turf. Specific signage and boundaries to delineate the parkour area.

**Other Needs:** Spectator space for parents, friends, and park visitors to view the activity. Safety signage.

### SERVICES IT PROVIDES

Since parkour requires no specialized equipment, the activity is accessible to those who cannot afford a boat or bicycle, increasing equity in recreation activities at Mill City Park.

### OTHER DETAILS ASSOCIATED

At a minimum, parkour areas should incorporate elements like elevated bars for swinging, waist high elements for vaulting, and medium to high walls or blocks for climbing.

### OTHER ELEMENTS IT SHOULD BE LOCATED IN RELATION TO:

Restrooms, parking, and other adventure activity areas such as the climbing wall.



Above: Penzer Parkour Park in Langley, British Columbia.

## Mountain Bike Pump Track and Skills Course

### PURPOSE

A pump track and skills trail further establishes Franklin as an outdoor recreation destination. These features provide bicyclists of all levels an opportunity to exercise, play, and build skills. It provides entertainment- a new experience for some park visitors or a reason to come to the park for cycling enthusiasts. There's also opportunity to organize competitions or other events to draw in a larger cycling crowd.

### DESIGN CONSIDERATIONS

**Location & Space Needed:** Slight slope and well-draining soil. A large enough contiguous area for loops of trail that can accommodate multiple users. Possibly a small learning area, and a skills trail that can be routed around features in a more linear fashion.

**Other Needs:** Spectator space for parents, friends, and park visitors to view the activity.

### SERVICES IT PROVIDES

A pump track provides recreation, entertainment, and community building value.

### OTHER DETAILS ASSOCIATED

Pump tracks typically require earth moving to construct the appropriate berms, turns, and jumps, therefore heavy equipment may be needed. Pump tracks require maintenance to mitigate drainage and erosion issues and maximize safety and aesthetics. Having access to the materials for regular maintenance will be required for the viability of this feature.

### OTHER ELEMENTS IT SHOULD BE LOCATED IN RELATION TO:

Pedestrian paths, parking lot, restrooms.



Above: Burke Mountain Bike Park in Burke, VT.



Above: Highland Mountain Bike Park, Northfield NH.



Above: Mount Snow Bike Park, West Dover, VT.

## Natural Playground

### PURPOSE

Natural playgrounds integrate elements that are part of nature or are made from natural materials including trees, grass, logs, wood, stone, water, and tree houses to create a playscape that is less plastic and more interactive with nature.

### DESIGN CONSIDERATIONS

**Location & Space Needed:** The natural playground is located near the mill remnant climbing wall and not far from the water play areas.

**Other Needs:** Natural and prefabricated materials that are moveable and can be manipulated, to create a playground that is flexible in form. Slides, swings, towers, climbing structures. A soft surface material, such as wood chips.

### SERVICES IT PROVIDES

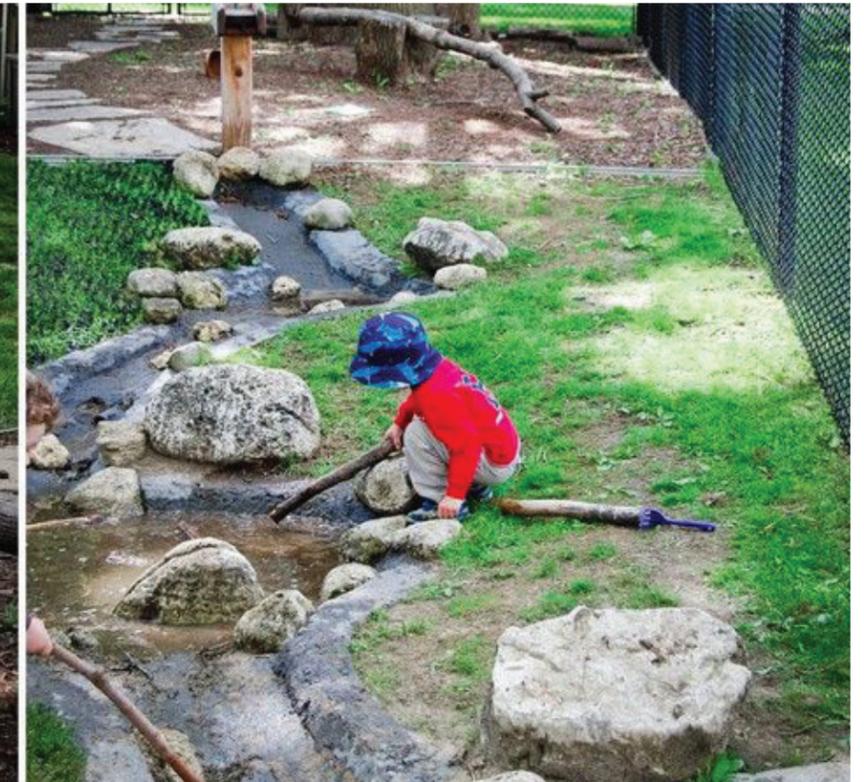
Provides space for children to run and play. Helps children develop motor skills, social behaviors (cooperation, problem solving), and stimulate imagination and creativity. Offers families in the communities a unique outdoor playscape for children.

### OTHER DETAILS ASSOCIATED

Consider safety features and scale of elements to provide space for kids of different ages and abilities.

### OTHER ELEMENTS IT SHOULD BE LOCATED IN RELATION TO:

Pedestrian paths, seating.



Above: A natural playscape built at the Brighton Children's Center in California.



Above: Discovery Park, Auburn WA.



Above: Natural playground in Toronto.

## Historic Ruins Trail

### PURPOSE

To celebrate the natural and cultural history represented by the mill ruins on site, part of the walking trail by the river will be dedicated to communicating this history and heritage to park visitors through strategically placed interpretive signage.

### DESIGN CONSIDERATIONS

**Location & Space Needed:** Highlight historic relics through appropriately placed signage along walking trail. Ensure they're easy to read, are an appropriate height for both children and adults, and include photographs or renderings to show what this site used to look like. Protect and stabilize historic relics by fencing off areas to prevent damage and injury to visitors.

**Other Needs:** Designate space for public art that celebrates Franklin and Mill City Park's history and the natural setting. Provide seating.

### SERVICES IT PROVIDES

Connects park visitors to Franklin's history. Provides a passive activity for park visitors. Celebrates the city's heritage.

### OTHER DETAILS ASSOCIATED

To protect any signage from vandalism, explore ground mounting options and use durable materials.

### OTHER ELEMENTS IT SHOULD BE LOCATED IN RELATION TO:

Pedestrian paths, historic ruins.



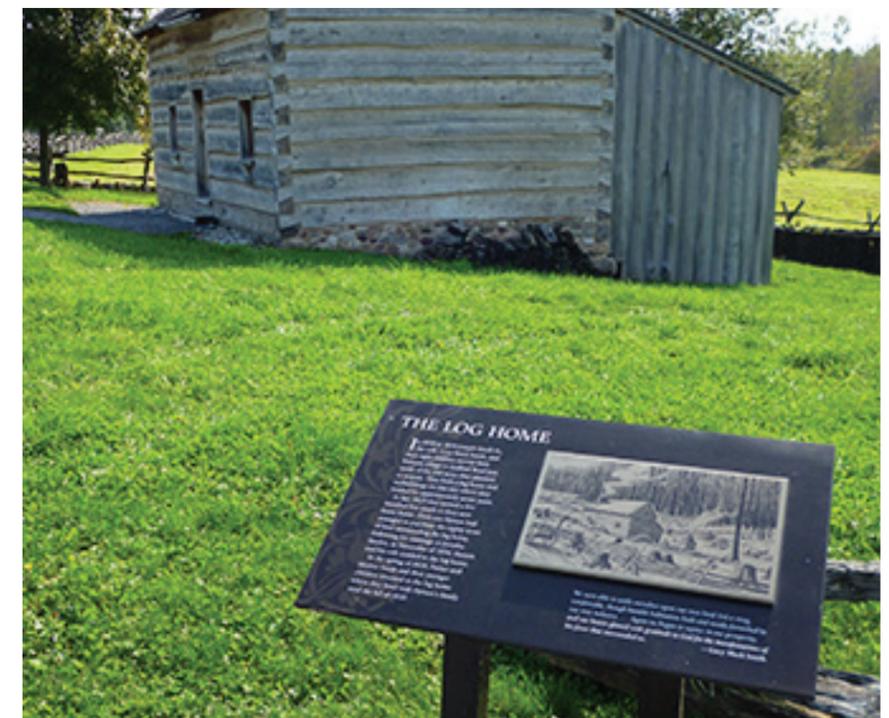
Above: An interpretive sign on Williamsburg Woodland Trail in Williamsburg, MA.



Above: A sitting spot off Whitefish Interpretive Trail in Montana.



Above: The Plainfield, MA Historical Society purchased a parcel along the Mill River that contains remnants of three mill foundations. They constructed a kiosk and created interpretive trails that lead guests through the historic relics.



Above: An interpretive sign highlights a historical structure at Smith Historical Farm in Palmyra, NY.

## Park Center

### PURPOSE

The Park Center will serve as the central building for guests who stay in rental cabins or tents. The center will feature a communal kitchen, dining space, administrative offices, first aid, a check-in kiosk, restroom/shower facilities, and meeting space.

### DESIGN CONSIDERATIONS

**Location & Space Needed:** Building materials (rustic, recycled, salvaged if possible). Energy efficient building design. Solar energy to power the building. Landscaping that blends with the local area and the park and serves as on-site green infrastructure. Consider using a whole system, design approach when designing the building.

**Other Needs:** Explore composting toilets, a greywater system, and rainwater catchment methods.

### SERVICES IT PROVIDES

Physical space for support staff managing camping sites/cabins. Facilities/amenities for camping/cabin guests. Space for community building, events, and speakers.

### OTHER DETAILS ASSOCIATED

Consider a communal outdoor space for guests to linger outside the park center that might include a fire pit, benches, etc.

### OTHER ELEMENTS IT SHOULD BE LOCATED IN RELATION TO:

Tent sites, rental cabins, pedestrian paths, parking area.



Above: Dannel Nature Park Center in Fairfield, CA.

## Tent Sites

### PURPOSE

In anticipation of the many outdoor adventure enthusiasts who will be visiting the park, tent sites will be created to accommodate overnight visitors and to generate revenue for park operations and costs. Since the park is so multifunctional and diverse in what it has to offer, tent sites provide a way for visitors to stay on site for multiple days at a time at an affordable rate and get the most activity in as possible.

### DESIGN CONSIDERATIONS

**Location & Space Needed:** Tent sites of varying sizes for groups (2-person, family, etc.). Flat, level area for tents to be pitched, whether on-ground or on built platforms. Access to water for drinking and cooking. Forested buffers to enhance privacy between tent sites. Emergency vehicle access. Within walking distance of restrooms, park information, etc.

**Other Needs:** Tent site amenities including fire pit, picnic table, trash receptacles, signage, etc. Carts to transport gear from vehicles to tent sites.

### SERVICES IT PROVIDES

Low-impact overnight accommodations. Revenue. Connection to nature.

### OTHER DETAILS ASSOCIATED

Office staff for this venture will be critical for managing camp sites, communicating ground-rules, and ensuring a smooth cycling of guests.

### OTHER ELEMENTS IT SHOULD BE LOCATED IN RELATION TO:

Restrooms, parking, park center, pathways.



Above: A flat, accessible tent site with picnic table at the Gorge Lake Campground in Washington.



Above: A wide tent platform with railings overlooking the water at a campground in Acadia National Park in Maine.

## Rental Cabins

### PURPOSE

Rental Cottages offer another choice of overnight accommodations for park visitors who want the comfort of sleeping in a bed. These cabins will use a “tiny house” design approach and will reflect historic housing once located in the city. Cottages will be largely used as sleeping quarters. Communal kitchen and restroom/shower facilities at the Park Center can be accessed by those staying in the cabins.

### DESIGN CONSIDERATIONS

**Location & Space Needed:** Building materials and labor for cottages. Capacity to sleep 2-4 people. Solar electric power (individual panels or communal source). Space to store bikes, boats, snow machines, etc.

**Other Needs:** Compliance with city building codes/zoning. Office staff to coordinate guest services.

### SERVICES IT PROVIDES

Overnight accommodations for park visitors. Revenue. A more “glamorous” camping option.

### OTHER DETAILS ASSOCIATED

Nowadays, many “glampers” want amenities including Wi-fi, fans, heating/air-conditioning, etc. Year-round use will require heat.

### OTHER ELEMENTS IT SHOULD BE LOCATED IN RELATION TO:

Pedestrian pathways, park center, restrooms, showers, space to gather with friends, firepit.



Above: A cabin with large porch tucked in a forest at Catawba Falls Campground in North Carolina. White pine walls, large loft for storage, electricity, double bunk bed.

## Public Restrooms

### PURPOSE

Mill City Park is expected to have high amounts of pedestrian traffic for events, day-time visitors, and overnight guests in a given year. It’s important to have strategically located bathroom facilities in the park to accommodate these needs and to design public restrooms to cycle resources efficient and reduce ecological impact. There will be two restroom areas in the park- one by the amphitheater and one by the camping area.

### DESIGN CONSIDERATIONS

**Location & Space Needed:** Flat, well-drained area. Building materials and finishes for the facility. ADA accessibility. Electricity and water supply. Landscaping to enhance appearance. Appropriate signage to ensure park visitors know where the restrooms are located.

**Other Needs:** Restrooms should be aesthetically pleasing and might include some screening. Sustainable design features could include composting toilets, greywater reuse, or solar powered electricity.

### SERVICES IT PROVIDES

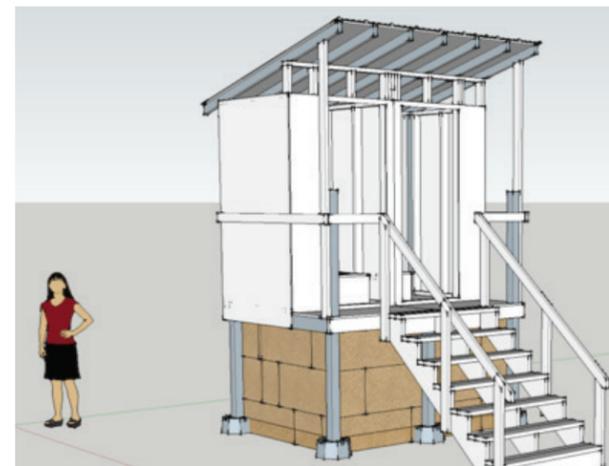
Provides an important facility for any park guest. Provides greywater for surrounding plants if utilized in a greywater recycling system. Provides finished compost if composting toilets are installed.

### OTHER DETAILS ASSOCIATED

Restroom design should also consider higher-than-average pedestrian volume during events.

### OTHER ELEMENTS IT SHOULD BE LOCATED IN RELATION TO:

Parking lot, pedestrian paths, rental cabins, program areas, amphitheater.



Above: A composting toilet diagram courtesy of Open Source Ecology.



Above: Solar powered public restrooms in Australia by Moodie’s Outdoor Products.

## Pedestrian Paths

### PURPOSE

The pedestrian pathways serve as a walking loop throughout Mill City Park, connecting the various destinations and points of interest on site including the outdoor adventure venues, mill ruins, the river, and other park facilities. They may also be used to enjoy the atmosphere of the park and for light exercise.

### DESIGN CONSIDERATIONS

**Location & Space Needed:** Pedestrian paths should meander throughout this natural setting, linking all key locations on site in a logical, user-friendly, and accessible way.

**Other Needs:** Paths should be relatively flat with a wheelchair friendly surface material such as packed dirt, stone dust, asphalt, wood, and fine crushed rock or limestone screenings. Railings, stairs, and ramps may be necessary for pedestrians to gain access to specific areas of the park. If not all areas can be wheelchair accessible particularly to get down by the river, consider open sight lines at higher elevations for this population.

### SERVICES IT PROVIDES

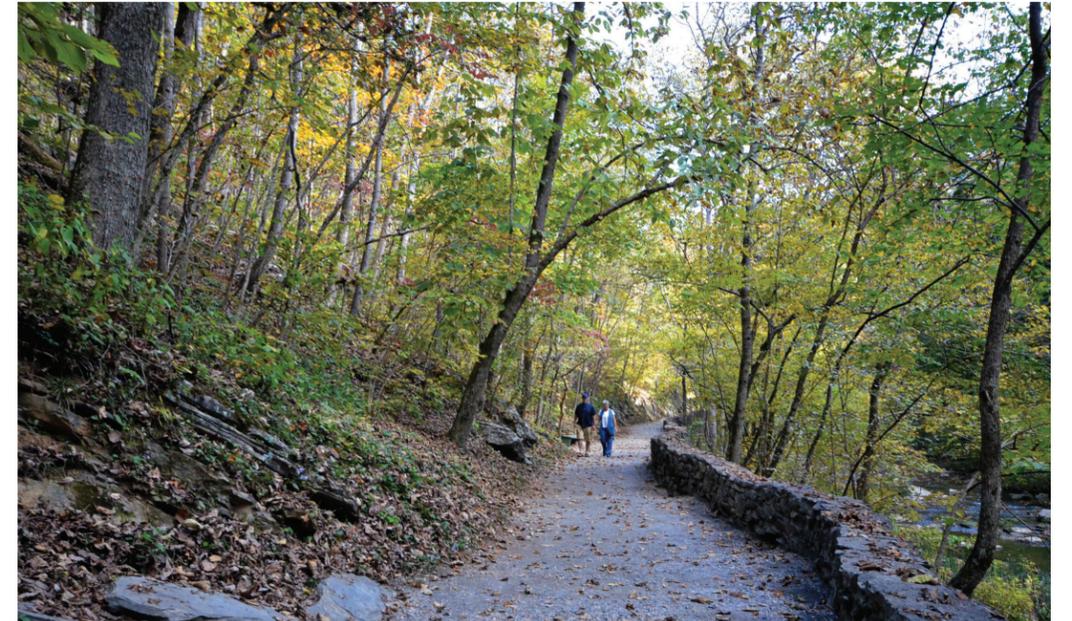
Connects destinations of Mill City Park. Provides a form of exercise.

### OTHER DETAILS ASSOCIATED

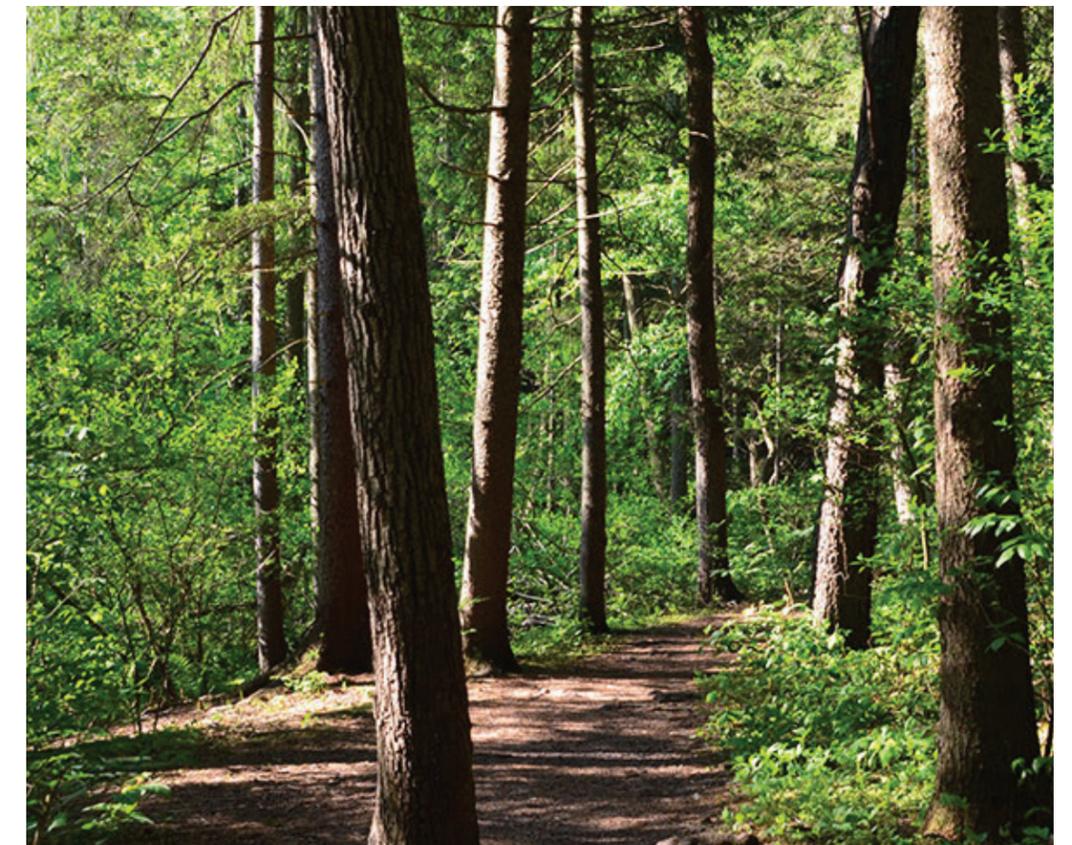
Add visual interest by adding curves in the pathways, create destination zones, and offer a natural 2-way traffic flow when possible. The path may change character a bit throughout the park but ensure that different individuals can access and enjoy different pieces of it.

### OTHER ELEMENTS IT SHOULD BE LOCATED IN RELATION TO:

Paths should link all elements of park. Seating. Lookouts.



Above: A walking path called Cedar Creek Trail in Natural Bridge State Park in MA.



Above: A path of compacted soil winds its way through the woods.



Above: A wooden staircase allows for river access at steep areas of the bank in Nashville, TN.



Above: A seating area offers an outlook of the river. Maplewood Flats Conservation Area. British Columbia.

## Parking Area

### PURPOSE

The parking area serves as infrastructure for parking vehicles, bicycles, and buses? It is an important design element for day-time visitors and those staying overnight in the rental cabins or tent sites.

### DESIGN CONSIDERATIONS

**Location & Space Needed:** The parking lot will be accessed by a driveway off Willow Street. Circulation patterns should be obvious, simple, and safe. The parking layout should provide continuous flow of traffic through the lot. Consider safety and needs of all transportation modes arriving to park including vehicles, bicycles, and pedestrians. Surface material could be permeable or asphalt. Grading should ensure that stormwater drains into carefully designed green infrastructure systems. These systems should utilize landscaping and low impact development techniques to design an integrated bioretention system to capture and filter stormwater that flows off the parking lot. Parking facilities and amenities should be accessible to all individuals, including differently abled people. Incorporate clear signage. Install bicycle parking.

**Other Needs:** Overflow parking that can be utilized during events. LED lighting or solar powered lighting systems and other pedestrian amenities to increase safety, comfort, and ease of use during all times of day.

### SERVICES IT PROVIDES

Parking areas provides a place for visitors to leave their vehicles and bicycles (if they wish) as they explore the park. They also provide an opportunity for green infrastructure, biodiversity, rainwater filtration, and habitat. Incorporating shade minimizes the heat island effect through effective shading.

### OTHER DETAILS ASSOCIATED

Good parking lot design integrates the parking lot into the surrounding natural and built environment as a way to improve it's aesthetics and enhance sense of place. Include a kiosk with a map showing the extent of the full park with educational signage about the surrounding green infrastructure of the park.

### OTHER ELEMENTS IT SHOULD BE LOCATED IN RELATION TO:

Walking paths, restrooms.



Above: An example of a sustainable parking lot design that incorporates alternative surfacing materials, a bioswale, and site-appropriate plantings.



Above: A curb cut allows water to drain into a bioswale installed in the center of a paved parking lot to capture and filter stormwater.



Above: Missouri Botanical Garden's parking lot is a beautiful space for guests and visitors to enjoy right as they enter the property. Green infrastructure around the parking lot also provides wildlife habitat and important ecological services.